

Appl. No. 10/828,533  
Amdt. dated April 3, 2006  
Reply to Office action of February 08, 2006

**Amendments to the Claims:**

This listings of claims will replace all prior variations and listings of claims in the application:

**Listing of Claims:**

1 Claim 1 (original). A port security barrier system for protecting  
2 a port facility from a waterborne craft laden with explosives,  
3 said port security barrier system comprising:

4 (a) a plurality of port security barrier modules  
5 connected to one another to form a floating security barrier  
6 for said port facility having a length from about two  
7 hundred feet to about one mile;

8 (b) a plurality of mooring buoys, each of said  
9 plurality of mooring buoys being disposed between an  
10 adjacent pair of said port security barrier modules and  
11 connected to each of the adjacent pair of said port security  
12 barrier modules, said mooring buoys maintaining said port  
13 security barrier modules in a fixed position relative to  
14 said port facility to insure that said port facility is  
15 protected from said waterborne craft;

16 (c) each of said port security barrier modules

Appl. No. 10/828,533  
Amdt. dated April 3, 2006  
Reply to Office action of February 08, 2006

17 including:

18 (i) a longitudinal strength member;

19 (ii) a generally rectangular shaped capture net

20 extending vertically upward from said longitudinal strength

21 member, said capture net having a length approximately the

22 same as the length of said longitudinal strength member, and

23 a height which is sufficient to prevent said waterborne

24 craft from penetrating said port facility;

25 (iii) a net support structure extending vertically

26 upward from said longitudinal strength member, said net

27 support structure being attached to said longitudinal

28 strength member, said net support structure having said

29 capture net attached thereto;

30 (iv) a plurality of pontoons attached to said

31 longitudinal strength member and orientated perpendicular to

32 said longitudinal strength member, said pontoons for each of

33 said port security barrier modules keeping said port

34 security barrier system afloat in a seawater environment;

35 and

36 (v) an anti-kayak guard positioned below and attached

37 to said longitudinal strength member, said anti-kayak guard

38 preventing small watercraft from slipping under said port

Appl. No. 10/828,533  
Amdt. dated April 3, 2006  
Reply to Office action of February 08, 2006

39           security barrier system into said port facility.

1     Claim 2 (original). The port security barrier system of claim 1  
2     wherein each of said plurality of mooring buoys has one end of a  
3     mooring line connected thereto, said mooring line having at least  
4     two branches, each of the branches of said mooring line having an  
5     anchor connected thereto.

1     Claim 3 (original). The port security barrier system of claim 1  
2     wherein said capture net has a mesh structure, said mesh  
3     structure having a one foot square mesh size comprising  
4     horizontal boat stopping members consisting of a 1.125 inch  
5     diameter 12-Strand Braided nylon rope and vertical boat stopping  
6     members consisting of 0.75 inch diameter 12-Plait nylon, the  
7     horizontal boat stopping members of said capture net being  
8     interlaced with the vertical boat stopping members of said  
9     capture net to form the mesh structure of said capture net.

1     Claim 4 (original). The port security barrier system of claim 3  
2     wherein said capture net has a height of approximately eight feet  
3     and a width of approximately fifty two feet.

Appl. No. 10/828,533

Amdt. dated April 3, 2006

Reply to Office action of February 08, 2006

1 Claim 5 (original). The port security barrier system of claim 3  
2 wherein said capture net is fabricated from nylon to absorb  
3 energy from a waterborne craft which engages said capture net,  
4 said waterborne craft when engaging said capture net traveling at  
5 speeds of up to 52 knots and having a weight of around 10,000  
6 pounds.

7  
8 Claim 6 (original). The port security barrier system of claim 1  
9 wherein said plurality of pontoons comprise three pontoons, a  
10 first and a second of said three pontoons being positioned at  
11 each end of said longitudinal strength member and a third of said  
12 three pontoons being position at the center of said longitudinal  
13 strength member, the first and the second of said three pontoons  
14 having an equal length, and the third of said three pontoons  
15 having a substantially greater length than the first and the  
16 second of said three pontoons.

1 Claim 7 (original). The port security barrier system of claim 1  
2 wherein said longitudinal strength member includes connector  
3 elements positioned at each end of said longitudinal strength  
4 member, said connector elements allowing a user of said port  
5 security barrier system to connect each of said port security

Appl. No. 10/828,533  
Amdt. dated April 3, 2006  
Reply to Office action of February 08, 2006

6 barrier modules to adjacent port security barrier modules.

1 Claim 8 (original). The port security barrier system of claim 7  
2 wherein one of said port security barrier modules operates as a  
3 gate, the connector elements of the one of said port security  
4 barrier modules operating as said gate  
5 allowing said user to open and close the one of said port  
6 security barrier modules operating as said gate.

1 Claim 9 (original). The port security barrier system of claim 1  
2 wherein said net support structure comprises:

3 first, second and third net support members attached  
4 to said longitudinal strength member, said first,  
5 second and third net support members extending  
6 vertically upward from said longitudinal strength  
7 member, said first net support member being positioned  
8 at one end of said longitudinal strength member, said  
9 second net support member being positioned at other end  
10 of said longitudinal strength member and said third net  
11 support member being positioned at the center of said  
12 longitudinal strength member;  
13 a first angled support brace, said first angled support

Appl. No. 10/828,533

Amdt. dated April 3, 2006

Reply to Office action of February 08, 2006

14           brace having one end attached to the bottom end of said  
15           first net support member and the other end attached  
16           near the top end of said third net support member; and  
17       a second angled support brace, said second angled  
18           support brace having one end attached to the bottom end  
19           of said second net support member and the other end  
20           attached near the top end of said third net support  
21           member.

1       Claim 10 (original). The port security barrier system of claim 9  
2       further comprising a warning light located near the top end of  
3       said third net support member and a light support bracket  
4       attached to said net support member, said light support bracket  
5       being mounted on said light support bracket.

1       Claim 11 (currently amended). The port security barrier system  
2       of claim 9 further comprising:

3           a third angled support brace having one end attached to  
4           the top end of said first net support member and the  
5           other end attached to a first of said plurality of  
6           pontoons;

7           a fourth angled support brace having one end attached to

Appl. No. 10/828,533

Amdt. dated April 3, 2006

Reply to Office action of February 08, 2006

8           the top end of said second net support member and the  
9           other end attached to a second of said plurality of  
10          pontoon; and  
11          a fifth angled support brace having one end attached to the  
12          top end of said third net support member and the other  
13          end attached to a third of said plurality of pontoon.

1    Claim 12 (original). A port security barrier system for  
2    protecting a port facility from a waterborne craft laden with  
3    explosives, said port security barrier system comprising:  
4          (a) a plurality of port security barrier modules  
5          connected to one another to form a floating security barrier  
6          for said port facility having a length from about two  
7          hundred feet to about one mile;  
8          (b) a plurality of mooring buoys, each of said  
9          plurality of mooring buoys being disposed between an  
10         adjacent pair of said port security barrier modules and  
11         connected to each of the adjacent pair of said port security  
12         barrier modules, said mooring buoys maintaining said port  
13         security barrier modules in a fixed position relative to  
14         said port facility to insure that said port facility is  
15         protected from said waterborne craft;

Appl. No. 10/828,533  
Amdt. dated April 3, 2006  
Reply to Office action of February 08, 2006

(c) each of said port security barrier modules

including:

(i) a longitudinal strength member;

(ii) a generally rectangular shaped capture net

extending vertically upward from said longitudinal strength

member, said capture net having a length approximately the

same as the length of said longitudinal strength member, and

a height which is sufficient to prevent said waterborne

craft from penetrating said port facility, said capture net

having a mesh structure, said mesh structure having a one

foot square mesh size comprising horizontal boat stopping

members consisting of a 1.125 inch diameter 12-Strand

Braided nylon rope and vertical boat stopping members

consisting of 0.75 inch diameter 12-Plait nylon, the

horizontal boat stopping members of said capture net being

interlaced with the vertical boat stopping members of said

capture net to form the mesh structure of said capture net;

(iii) a net support structure extending vertically

upward from said longitudinal strength member, said net

support structure being attached to said longitudinal

strength member, said net support structure having said

capture net attached thereto;



Appl. No. 10/828,533

Amdt. dated April 3, 2006

Reply to Office action of February 08, 2006

38 (iv) a first pontoon, a second pontoon and a third  
39 pontoon orientated perpendicular to said longitudinal  
40 strength member and attached thereto, said first pontoon  
41 being positioned at each one end of said longitudinal  
42 strength member, said second pontoon being positioned at the  
43 opposite end of said longitudinal strength member and said  
44 third pontoon being position at the center of said  
45 longitudinal strength member, said first pontoon and said  
46 second pontoon having an equal length, and said third  
47 pontoon having a substantially greater length than said  
48 first pontoon and said second pontoon, said first pontoon,  
49 said second pontoon and said third pontoon for each of said  
50 port security barrier modules keeping said port security  
51 barrier system afloat in a seawater environment; and  
52 (v) an anti-kayak guard positioned below and attached  
53 to said longitudinal strength member, said anti-kayak guard  
54 preventing small watercraft from slipping under said port  
55 security barrier system into said port facility.

1 Claim 13 (original). The port security barrier system of claim  
2 12 wherein each of said plurality of mooring buoys has one end of  
3 a mooring line connected thereto, said mooring line having at

Appl. No. 10/828,533

Amdt. dated April 3, 2006

Reply to Office action of February 08, 2006

4     least two branches, each of the branches of said mooring line  
5     having an anchor connected thereto.

1     Claim 14 (original). The port security barrier system of claim 12  
2     wherein said capture net has a height of approximately eight feet  
3     and a width of approximately of fifty two feet.

1     Claim 15 (original). The port security barrier system of claim  
2     12 wherein said capture net is fabricated from nylon to absorb  
3     energy from a waterborne craft which engages said capture net,  
4     said waterborne craft when engaging said capture net traveling at  
5     speeds of up to 52 knots and having a weight of around 10,000  
6     pounds.

1     Claim 16 (original). The port security barrier system of claim  
2     12 wherein said longitudinal strength member includes connector  
3     elements positioned at each end of said longitudinal strength  
4     member, said connector elements allowing a user of said port  
5     security barrier system to connect each of said port security  
6     barrier modules to adjacent port security barrier modules.

1     Claim 17 (original). The port security barrier system of claim

Appl. No. 10/828,533

Amdt. dated April 3, 2006

Reply to Office action of February 08, 2006

16 wherein one of said port security barrier modules operates as a gate, the connector elements of the one of said port security barrier modules operating as said gate allowing said user to open and close the one of said port security barrier modules operating as said gate.

Claim 18 (currently amended). The port security barrier system of claim 12 wherein said net support structure comprises:

first, second and third net support members attached to said longitudinal strength member, said first, second and third net support members extending vertically upward from said longitudinal strength member, said first net support member being positioned at one end of said longitudinal strength member, said second net support member being positioned at other end of said longitudinal strength member and said third net support member being positioned at the center of said longitudinal strength member;

a first angled support brace, said first angled support brace having one end attached to the bottom end of said first net support member and the other end attached near the top end of said third net support member;

Appl. No. 10/828,533

Amdt. dated April 3, 2006

Reply to Office action of February 08, 2006

17           a second angled support brace, said second angled  
18                 support brace having one end attached to the bottom end  
19                 of said second net support member and the other end  
20                 attached near the top end of said third net support  
21                 member;  
22           a third angled support brace having one end attached to  
23                 the top end of said first net support member and the  
24                 other end attached to said first pontoon;  
25           a fourth angled support brace having one end attached to  
26                 the top end of said second net support member and the  
27                 other end attached to said second pontoon; and  
28           a fifth angled support brace having one end attached to the  
29                 top end of said third net support member and the other  
30                 end attached to said third pontoon.

1     Claim 19 (original). The port security barrier system of claim  
2     18 further comprising a warning light located near the top end of  
3     said third net support member and a light support bracket  
4     attached to said net support member, said light support bracket  
5     being mounted on said light support bracket.

1     Claim 20 (original). The port security barrier system of claim

Appl. No. 10/828,533

Amdt. dated April 3, 2006

Reply to Office action of February 08, 2006

2 12 wherein each of said port security barrier modules has a tow  
3 brace assembly for providing stability for said port security  
4 barrier module when said port security barrier module is being  
5 towed at sea, said port security barrier module having first and  
6 second towing braces, said first towing brace having one end  
7 attached to the center of said first pontoon and the opposite end  
8 attached to the rear of said third pontoon and said second towing  
9 brace having one end attached to the center of said second  
10 pontoon and the opposite end attached to the rear of said third  
11 pontoon.

1 Claim 21 (previously presented). A port security barrier system  
2 for protecting a port facility from a waterborne craft laden with  
3 explosives, said port security barrier system comprising:

4 (a) a plurality of port security barrier modules connected  
5 to one another to form a floating security barrier for said  
6 port facility having a length from about two hundred feet to  
7 about one mile;

8 (b) a plurality of mooring buoys, each of said plurality of  
9 mooring buoys being disposed between an adjacent pair of  
10 said port security barrier modules and connected to each of  
11 the adjacent pair of said port security barrier modules,

Appl. No. 10/828,533

Amdt. dated April 3, 2006

Reply to Office action of February 08, 2006

12           said mooring buoys maintaining said port security barrier  
13           modules in a fixed position relative to said port facility  
14           to insure that said port facility is protected from said  
15           waterborne craft;

16           (c) each of said port security barrier modules including:

17           (i) a longitudinal strength member;

18           (ii) a generally rectangular shaped capture net extending  
19           vertically upward from said longitudinal strength member,  
20           said capture net having a length approximately the same as  
21           the length of said longitudinal strength member, and a  
22           height which is sufficient to prevent said waterborne craft  
23           from penetrating said port facility;

24           (iii) a net support structure extending vertically upward  
25           from said longitudinal strength member, said net support  
26           structure being attached to said longitudinal strength  
27           member, said net support structure having said capture net  
28           attached thereto; and

29           (iv) a plurality of pontoons attached to said longitudinal  
30           strength member and orientated perpendicular to said  
31           longitudinal strength member, said pontoons for each of said  
32           port security barrier modules keeping said port security  
33           barrier system afloat in a seawater environment.

Appl. No. 10/828,533  
Amdt. dated April 3, 2006  
Reply to Office action of February 08, 2006

1 Claim 22 (previously presented). The port security barrier  
2 system of claim 21 wherein each of said plurality of mooring  
3 buoys has one end of a mooring line connected thereto, said  
4 mooring line having at least two branches, each of the branches  
5 of said mooring line having an anchor connected thereto.

1 Claim 23 (previously presented). The port security barrier system  
2 of claim 21 wherein said capture net has a mesh structure, said  
3 mesh structure having a one foot square mesh size comprising  
4 horizontal boat stopping members consisting of a 1.125 inch  
5 diameter 12-Strand Braided nylon rope and vertical boat stopping  
6 members consisting of 0.75 inch diameter 12-Plait nylon, the  
7 horizontal boat stopping members of said capture net being  
8 interlaced with the vertical boat stopping members of said  
9 capture net to form the mesh structure of said capture net.

1 Claim 24 (previously presented). The port security barrier  
2 system of claim 23 wherein said capture net has a height of  
3 approximately eight feet and a width of approximately fifty two  
4 feet.

Appl. No. 10/828,533  
Amdt. dated April 3, 2006  
Reply to Office action of February 08, 2006

1 Claim 25 (previously presented). The port security barrier  
2 system of claim 23 wherein said capture net is fabricated from  
3 nylon to absorb energy from a waterborne craft which engages said  
4 capture net, said waterborne craft when engaging said capture net  
5 traveling at speeds of up to 52 knots and having a weight of  
6 around 10,000 pounds.

7  
8 Claim 26 (previously presented). The port security barrier  
9 system of claim 21 wherein said plurality of pontoons comprise  
10 three pontoons, a first and a second of said three pontoons being  
11 positioned at each end of said longitudinal strength member and a  
12 third of said three pontoons being position at the center of said  
13 longitudinal strength member, the first and the second of said  
14 three pontoons having an equal length, and the third of said  
15 three pontoons having a substantially greater length than the  
16 first and the second of said three pontoons.

1 Claim 27 (previously presented). The port security barrier  
2 system of claim 21 wherein said longitudinal strength member  
3 includes connector elements positioned at each end of said  
4 longitudinal strength member, said connector elements allowing a



Appl. No. 10/828,533  
Amdt. dated April 3, 2006  
Reply to Office action of February 08, 2006

5 user of said port security barrier system to connect each of said  
6 port security barrier modules to adjacent port security barrier  
7 modules.

1 Claim 28 (previously presented). The port security barrier  
2 system of claim 27 wherein one of said port security barrier  
3 modules operates as a gate, the connector elements of the one of  
4 said port security barrier modules operating as said gate  
5 allowing said user to open and close the one of said port  
6 security barrier modules operating as said gate.

7  
8 Claim 29 (previously presented). The port security barrier  
9 system of claim 21 wherein said net support structure comprises:

10 first, second and third net support members attached  
11 to said longitudinal strength member, said first,  
12 second and third net support members extending  
13 vertically upward from said longitudinal strength  
14 member, said first net support member being positioned  
15 at one end of said longitudinal strength member, said  
16 second net support member being positioned at other end  
17 of said longitudinal strength member and said third net  
18 support member being positioned at the center of said

Appl. No. 10/828,533  
Amdt. dated April 3, 2006  
Reply to Office action of February 08, 2006

19 longitudinal strength member;  
20 a first angled support brace, said first angled support  
21 brace having one end attached to the bottom end of said  
22 first net support member and the other end attached  
23 near the top end of said third net support member; and  
24 a second angled support brace, said second angled  
25 support brace having one end attached to the bottom end  
26 of said second net support member and the other end  
27 attached near the top end of said third net support  
28 member.

1 Claim 30 (previously presented). The port security barrier  
2 system of claim 29 further comprising a warning light located  
3 near the top end of said third net support member and a light  
4 support bracket attached to said net support member, said light  
5 support bracket being mounted on said light support bracket.

1 Claim 31 (currently amended). The port security barrier system  
2 of claim 29 further comprising:

3 a third angled support brace having one end attached to  
4 the top end of said first net support member and the  
5 other end attached to a first of said plurality of

Appl. No. 10/828,533

Amdt. dated April 3, 2006

Reply to Office action of February 08, 2006

6                    pontoons;

7                    a fourth angled support brace having one end attached to

8                    the top end of said second net support member and the

9                    other end attached to a second of said plurality of

10                   pontoons; and

11                   a fifth angled support brace having one end attached to the

12                   top end of said third net support member and the other

13                   end attached to a third of said plurality of pontoons.